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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,986	01/30/2001	Kon-Hee Lee	1081.39543X00	8460

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EXAMINER
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PAN, YUWEN

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 04/06/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/771,986

Applicant(s)

LEE ET AL.

Examiner

Yuwen Pan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 3 and 4 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al (US006115592A) in view of Fujioka et al (US006366788B1).

With respect to claim 1, Ueda discloses a first switching portion for selecting any one of an upper band pass filter and a lower band pass filter that are operated by the band selecting portion (see figure 1 and item 18, figure 23 and column 18 and line 63-column 19 and line 10);

An amplifying portion (see figure 2 and item 9) for amplifying a receiving signal passed through the switching portion; a second switching portion (see figure 1 and item 20 figure 23 and column 18 and line 63-column 19 and line 10) for switching the receiving signal amplified at the amplifying portion according to the operating signal of the band selecting portion to select on supplying it to an upper band filter or a low band pass filter of a second filter;

A mixer for mixing the receiving signal passing through the second filter with a local oscillating frequency for a local oscillator (see figure 14 and items 74 and 77);

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A transmit mode determining portion <sup>for</sup> ~~for~~ determining/transmitting a transmit frequency according to a signal outputted from the band selecting portion in which is the SW (see figure 14 and column 11 and lines 21-39);

The baseband signal processor unit, SW and phase-locked loop circuit constitute the functionality of selecting portion for switching a communication system in a waiting mode into master, a controller for determining a transmit-receive frequency according to the operating of the selecting portion and generating a control signal; a band selecting portion for selecting an inputting signal of an upper band or a lower band of a receiving signal passing through an antenna and a duplexer according the control signal of the controller (see column 11 and line 55-column 12 and line 4, column 18 and line 63-column 19 and line 10).

Ueda further teaches a demodulator unit but Ueda doesn't teach a filtering portion for filtering an intermediate frequency from the mixed frequency. The examiner takes "Official Notice" of the fact that is notoriously well-known in the art to pass an IF to an IF filter, in order to filter out unnecessary frequency such as noise.

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to have the IF filter such that only required information would be passing through.

Ueda doesn't teach that a controller, a selecting portion, connected to an input of the controller, which determines a transmitting or receiving frequency according to operation of the selecting portion and a band selection portion, connected to an output of the controller which outputs a control signal which selects an input signal of an upper band or a lower band of a received signal which passes through an antenna.

Fujioka teaches that a controller, a selecting portion, connected to an input of the controller, which determines a transmitting or receiving frequency according to operation of the selecting portion and a band selection portion, connected to an output of the controller which outputs a control signal which selects an input signal of an upper band or a lower band of a received signal which passes through an antenna (see figure 1, column 5 and lines 1-32).

It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Fujioka with Ueda's device such that the transaction from one frequency band to the other would be well controlled.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al (US006115592A).

Ueda teaches a transmit-receive switching method comprising steps of:  
Determining whether the communication system is a master or slave, if the communication device initial a call in which acts as a master, it would automatically switch to the transmit channel either one of f1 or f2, performing the transmit-receive operating at a state determined by the first transmit-receive channel switch step (see column 18 and lines 56- column 19 and line 10); if the communication device receive a call in which acts as a slave, it would switching the transmit-receive channel automatically to place the transmit channel on the frequency channel different from the received frequency channel (see column 2 and line 59-column 3 and line 27).

Ueda doesn't expressly teach to judge whether the transmit-receive operating is finished and switching the transmitting-receiving mode into the waiting mode if finished and the function of automatic switching.

Generally speaking, one ordinary skill in the art knows that time duration for transmitting or receiving information for a dual-band mode radiotelephone is predetermined. In other words, the radiotelephone knows when to turn up for transmitting and receiving by adjusting the internal components such as filters and modulations. When there is no predetermined time period for either active modes, the radiotelephone should be turn down or switch to idle or waiting mode.

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to combine aforementioned limitation with Ueda's method such that the radiotelephone would transmit or receive during certain predetermined duration time and switch to idle or waiting mode during non-transmitting or non-receiving automatically for the purpose of saving battery.

### *Conclusion*

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

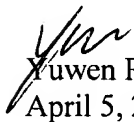
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 703-305-7372. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Yuwen Pan  
April 5, 2004

  
VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

4/5/04